

How to select Smart Evaporator

For gas replacement

The machine is including fourth Conc-plugs from #1 to #4.

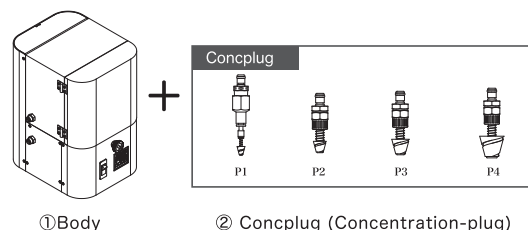
Select a favorite color of the body

Product Number C1- (color) - (Voltage) - (Power inlet Type)

Example for selecting product #

Body C1-SU-110-A

Body color	Color code	Conc plug number	Inner diameter of containers(mm)
Sun	SU	1	4~7
Squall	SQ	2	7~11
Sky	SK	3	11~17
Grass	GR	4	15~24



① Body
② Concplug (Concentration-plug)

Product Name : Smart Evaporator C1
Product Code : C1- (color) - (Voltage) - (Power inlet Type)
Size (mm) : Width 220 * Depth 270 * Height 389
Weight : 8.5 kg

Without cover for open air

Please select an one concplug from the list below.

Please select an one concplug

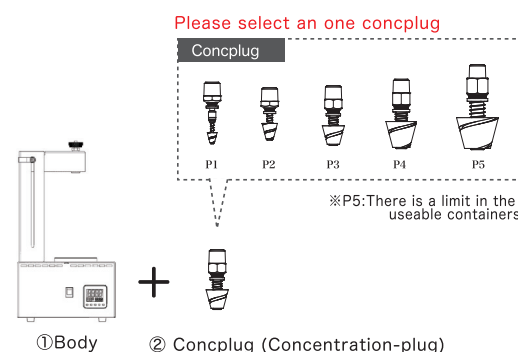
Product Number S1- SU- (Voltage) - (Power inlet Type)

① Body S1-SU-110-A

Example for selecting product #

② Concplug S1-P1

Body color	Color code	Conc plug number	Inner diameter of containers(mm)
Sun	SU	1	4~7
		2	7~11
		3	11~17
		4	15~24
		5	24~32



① Body
② Concplug (Concentration-plug)

Product Name : Smart Evaporator S1
Product Code : S1- (color) - (Voltage) - (Power inlet Type)
Size (mm) : Width 205 * Depth 150 * Height 361
Weight : 2.7 kg

Accessories

● Vacuum pump

Recommendation type of pump : **Diaphragm vacuum pump**

We have a recommending vacuum pump.

Please contact and ask local distributors for details.

● Product Specifications

Heating control temperature : Room temperature ~ 100°C

Operating humidity limits : From 20 % to 80 % (No condensation)

*Please note that the product specification is subjected to the alternation without any notice

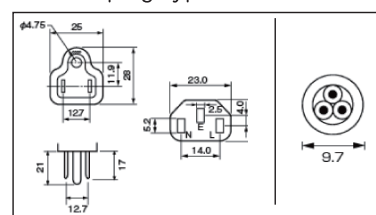
Caution!

Don't use cold trap with "liquid nitrogen" because it could cause an explosion due to the liquefaction of oxygen in air.

Need the flow rate of the vacuum pump.

Plug size	Flow rate (L/min)
1	13
2	15
3	33
4	50
5	58

Electric plug type : A



No.18

■Distributor

尚偉股份有限公司
SUNWAY SCIENTIFIC CORPORATION
用心服務

台北 : 02-27718337 新竹: 03-5352179

台中 : 04-22061113 高雄: 07-5552355

不負所託

■Manufacturer

BC BioChromato
BioChromato, Inc.

1-12-19 Honcho, Fujisawa, Kanagawa-ken 251-0053 JAPAN
TEL:0081-466-23-8382 Fax:0081-466-23-8279
http://www.bicr.co.jp/e/ E-mail:info@bicr.co.jp

Introducing!

Squall Grass Sky Sun

More than 200 institutions in Japan have been using the Smart Evaporator in their labs since its launch. Now it has been updated with multiple functions requested by our customers.

Easy concentration of small volume samples
Convenient concentrator with simple operation

Smart Evaporator



Visit our Website for details and secrets of this new concentrator.

BC BioChromato

Easy concentration of small volume samples

Smart Evaporator



Short cut for tedious concentration procedures

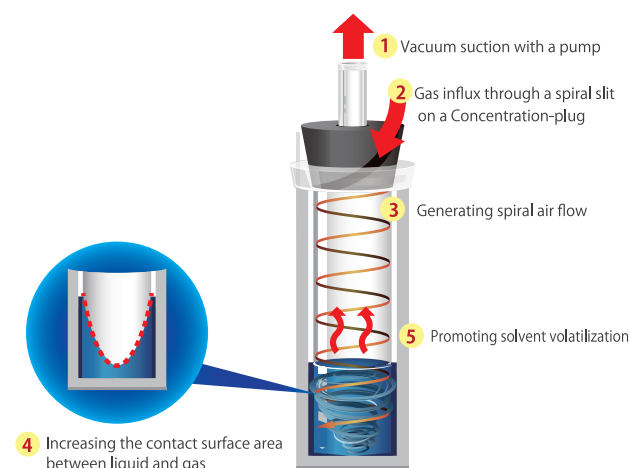
Useful in many different research fields

- Organic Chemistry
- Materials Science
- Polymer Chemistry
- Environmental Analysis
- Bio Chemistry etc

Used For

- ☐ Compounds after organic synthesis
- ☐ Solvent removal after NMR
- ☐ Samples after fractionation and purification
- ☐ Samples after solid extraction

Vacuum-assisted Vortex Concentration



Vortex-assisted Vortex Concentration increases the contact surface area between liquid and gas, which promotes the speed of concentration. In addition, this enables to concentrate samples without heating at high temperature. (※Liquid temperature should be higher than room temperature to prevent condensation within a container.)

Reference (Concentration speed)

Solvent / Capacity	Flow rate	26 °C	40 °C	70 °C
Hexane / 5 ml (20 ml vial)	15L/min	5 min	3 min	3 min
Acetone / 5 ml (20 ml vial)	15L/min	7 min	4 min	3 min
Ethyl acetate / 5 ml (20 ml vial)	15L/min	9min	6 min	5 min
Acetonitrile/ 5 ml (20 ml vial)	15L/min	18 min	9 min	8 min
Methanol / 5 ml (20 ml vial)	15L/min	31 min	10 min	6 min
Ethanol / 5 ml (20 ml vial)	15L/min	31 min	10 min	6 min
*Deionized Water / 5 ml (20 ml vial)	15L/min	95 min	49 min	28 min
*DMF / 5 ml (20 ml vial)	15L/min	68 min	43 min	24 min
*DMSO / 5 ml (20 ml vial)	15L/min	241 min	195 min	69 min
*NMP / 5 ml (20 ml vial)	15L/min	N/A	N/A	71 min

* Gas purge data

Reasons to be used 1 Bumping-free



Plugs with a spiral slit can prevent bumping by eliminating high vacuum state and generating spiral air flow to stir whole samples.



3 Efficient sample recovery

No requirement of sample transfers eliminates the risk of sample loss and saves time.



2 DMSO & DMF concentration



The unique concentration principle, spiral air flow, enables us to efficiently concentrate high-boiling temperature solvents, such as DMSO, DMF and water, without heating. (Keep the temperature of samples higher than that of room temperature to avoid condensation.)

Reference (Concentration speed)

Solvent / Capacity	40 °C	70 °C
*DMSO / 1 ml (20 ml vial)	94min	38min

* Gas purge data



4 Easy handling

It only takes a few minutes to start concentration by turning a control valve after setting up samples.



5 Compatible with various containers

Tapered concentration plugs are compatible with more than 500 different containers such as vials and micro tubes etc.

